EM-DAT database, floods account for 38.7% of all incidences, 6.2% of the deaths and every year 43% of world population is affected by flood. There are various factors which magnify the impact of flood to the community in the catchment area. The nature and extent of the flood is determined by the physical location and topography, and by the built environment. The built environment comprises of the existing political, social and economic structures inherent in a community. In the post-flood period, the risk of diarrhoea is significantly higher for those with lower educational level, living in a household with a non-concrete roof, drinking tube-well water (vs. tap water), using a distant water source and unsanitary toilets. The 1998 Bangladesh flood study confirms that low socio-economic groups and poor hygiene and sanitation groups are most vulnerable to flood-related diarrhoea (Annya et al., 2010). The Bihar flood of 2008 affected 100 villages out of which Supaul, Araria, Saharsa, Madhepura and Purnea were the most severly affected districts. Nearly 2.5 million people were affected by the floodwater. Various disease outbreaks are a common phenomenon in a post flood scenario. In Bihar, the population witnessed outbreaks of malaria, diarrhoea, measles and cholera. This paper examines the various factors causing diarrhoeal spread in the five flood affected districts of Bihar. Also, the paper analyses the above factors in terms of most contributing and least contributing factor towards diarrhoeal outbreak. The methodology used for the study is the statistical tool of Standard Multiple Regression Analyses where several independent variables will predict the dependent variable. The various independent variables have been taken all the five affected districts in Bihar floods. They are malnutrition, population density, awareness levels, socio-economic conditions, literacy, extent of flood and availability of health facilities. These independent variables will determine how much each predicts the dependent variable and as a result help in analysing the linear relationship between the dependent and independent variables.

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(A252) Impact of Protracted, Intrastate Conflict on Population Health in Manipur, India

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Introduction: Manipur is a state in northeastern India and in civil war for > 45 years. Healthcare delivery and access is affected due to poor security, restricted accessibility, and the incapacity of this fragile state.

Methods: The burden of morbidity and mortality in the conflict area of Manipur was estimated using data sources (hospital attendance, hospital inpatient, and death registries, national family and health registries, and in-depth interviews of healthcare providers) and compared to national averages. These findings were co-related with violent events reported in the local newspaper.

Results: Excess mortality was observed in the 21–50 year age group, but not in females or the elderly. The major causes of deaths were non-communicable diseases, cerebrovascular accidents, and chronic pulmonary disease. Chronic conflict increased the burden of alcohol liver disease and of mental health diseases. Suicidal deaths were common in the mid-twenty age group and usually due to agricultural pesticide consumption. These deaths were higher in men, and suicide attempts were higher in women. The prevalence of intravenous drug users and of HIV was reported to be five times as higher than the national average. High rates of disappearances, mutilation, torture, kidnapping, and hostage-taking, spousal physical violence and attacks on healthcare facilities and medical personnel were events of concern. There were no reported events of suicide bombers.

Conclusions: Protracted conflict dramatically changes the demographics and disease burden. Humanitarian space constantly is under threat of attack and the insecurity interferes with the provision of sustained preventive and curative services. Recommendations to be implemented would measures to continue treatment in the insecure environment through telephonic or online medical helplines, vaccination, and drug supplies during negotiated ceasefires or curfew times and protecting humanitarian spaces. However, militarization of healthcare may not be favorable solution.

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(A253) Integrated Community-Based Interventions to Overcome a Deadly Cholera Outbreak in Zimbabwe

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An unprecedented cholera outbreak affected Zimbabwe from August 2008 to July 2009 with 98,592 cases and 4,288 deaths, in 54 out of 62 districts. The main strategy used to overcome the outbreak was an integrated community-based interventions package. The present work is a case study to describe the strategy and lessons learned for future humanitarian crises and preparedness. The methodology was based on the review of epidemiological reports, assessment and surveys' reports, minutes of joint Health and Water Sanitation and Hygiene (WASH) Clusters' meetings, and direct observation as Health Cluster Coordinator. Epidemiological data showed an increasing number of cases in rural areas with community deaths representing 66% of the 1,948 deaths from 61,304 cases on 31 January 2009. Risk factors identified in communities were: lack of awareness about the disease, cultural and religious behaviors, lack of potable water with weak sanitation, lack and inappropriate use of water purification tablets, and lack of soap and water containers for effective behavior change. There also was late arrival to cholera to the few treatment centers by rural populations. In addition to treatment centers, a package of interventions was implemented by multi-sectoral stakeholders. The package included: health and WASH education tools and practice sessions for healthy and hygienic behavior change and for an effective use of oral rehydration salt as first aid measure; community-based surveillance with an early warning system and response teams; and distribution of containers and water purification tablets with drilling of water points. Epidemiological data showed a significant decrease of cholera cases where the full package was implemented. This work showed that an integrated package of interventions jointly targeting risk factors

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can be effective on public health threats in rural communities. Community-based preparedness and response should then take into account an integrated joint intervention package to mitigate public health threats.

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(A254) The Dutch Post-Disaster Response Strategy

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The post-disaster response strategy in The Netherlands is unique in that it links scientific institutes, national government and local emergency response organizations. The lynch pin is the Centre for Environmental Health which was founded by the Ministry of Health to improve post-disaster care in The Netherlands. The recently refined Dutch strategy for post-disaster response will be presented and illustrated with a few examples from recent disasters. We will focus on both the role of the Centre and the role of public health Hazmat advisors who are part of the local emergency response organization. The latter advise on the health risks of exposure to CBRN agents. One of the main objectives of the Centre is to prepare guidelines and a structure to ensure transparent and authoritative advice is given to local governments and public health services on the need and value of post-disaster care. The Centre operates a front office, available 24/7, to deliver integrated advice on public health and psychosocial care to local emergency response organizations. A network of experts with a wide range of expertise is on stand-by, whereby the characteristics of the disaster determine which experts compile the advice. The Centre also works closely with several other advisory organizations within the national emergency response organization. Three kinds of advice are delivered. Firstly, as an immediate response (usually within an hour), advice is given on the registration of victims. Secondly, usually within 24 hours, advice is given on the need and value of a health outcome assessment (HOA). Thirdly, if a HOA is decided on, detailed advice is given on its implementation. Another objective of the Centre is strengthening the unique position of regional public health services to deal with post-disaster care. The Centre produces guidelines, tools and training on demand to achieve harmonization and uniformity among these services.

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(A255) Medication Preparedness during Wildfire Evacuations

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Introduction: During wildfires, many are evacuated with little time to collect personal items. Evacuees who depend on daily medication for ongoing medical conditions often arrive to evacuation shelters without medication and with little knowledge of what they require. This problem is reported for evacuees in the 2008 Orange County California (USA) Freeway Triangle Wildfires.

Methods: Data was obtained retrospectively from Orange County Health Care Agency records regarding people who required medication while housed in evacuation shelters. Descriptive data was analysed using SPSS 17 and STATA 11.01.

Results: 40,000 persons were evacuated during the wildfires. Sixty of the evacuees aged from 6 to 82 years were without necessary medications. Of the sixty, there were 26 females and 34 males. People requiring medication would present to a public health nurse in the shelter whom would contact the Disaster Health Officer to arrange scripts for medication. Of the 60 people, 67% were unable to contact a primary physician and 75% were able to be issued a script for needed medication. The most common prescribed medication was albuterol for asthma and lung disease, then narcotic pain relief medication and next medication for cardiovascular / hypertension conditions.

Conclusions: Results show that life sustaining medication was required by people housed in an evacuation shelter. These people may not have had time to retrieve necessary medication if they had to evacuate quickly or may not have had an adequate supply of medication at the time of evacuation. Thus far there has been very little published on this issue however, our results show there is a need for pre-planning on behalf of people living in wildfire prone areas who require daily medication and are at risk for sudden evacuation. Our findings also highlight the important role provided by health workers in evacuation shelters in providing assistance for medication purposes.

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(A256) Public Health: A Portal to Peace

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War, conflict, and complex emergencies are major contributors to the crisis of human suffering with impacts on health, public health infrastructure, food security, economic viability, community infrastructure, and social fabric as well as the environment. Conflict mitigation and resolution are essential to the recovery and restoration of the community and health. Public health can serve as a mechanism to mitigate the impacts of conflict, serve as a bridge to resolve conflict and provide community resilience. The role of health care professionals as a "Bridge to Peace" is a critical component of conflict resolution. Health as a Bridge for Peace was formally accepted by the 51st World Health Assembly in May 1998 as a feature of the "Health for All in the 21st Century" strategy and has been demonstrated across a wide range of conflicts. Public health has attributes that make it a valuable platform for conflict resolution: it is broad, population-based, affects all parties, benefits both individuals and society, valued by recipients, and supports Universal Values. Public heath can be utilized in pre-conflict, conflict, and post-conflict situations and has been used in more than 20 conflict scenarios with Humanitarian Cease-fires, Days of Tranquility, and Safe/Peace Corridors supporting programs such as childhood vaccination days in Afghanistan to Guinea Worm Eradication in East Africa.

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